MISC. Materials Fireproofing

MEMORANDUM

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PA 90-A 5-63

TO: File
FROM: Malcolm P. Levy
DATE: April 20, 1965
SUBJECT: THE WORLD TRADE CENTER - MEETING ON FIREPROOFING, PARTITIONS AND STRUCTURAL STEEL
REFERENCE:
COPY TO: R. Baum (JBB), F. DiPaolo, D. Dreiss (JBB), L. Feld, R. Humenn (JRLA), H. Klippel (ERS), J. Loring (JRLA), L. Robertson (WSHJ), J. Roth (ERS), A. Schreier (MYA), J. Solomon (ERS), H. Tessler, M. Yamasaki (MYA)

A meeting was held on April 13, 1965 at the office of ERS to discuss fireproofing requirements of tower floors, partition thicknesses at elevator shafts, structural contours of exterior columns at window washing track and core slab construction. The following persons attended:

ERS	P.A./WTC	WSHJ
H. Klippel	L. Feld	L. Robertson
J. Roth	M. Levy	
R. Roth	C. Panero	
J. Solomon	I. Soffer	
	H. Tessler	

1. I instructed WSHJ to proceed as follows:

   A. Design a steel deck, specifying gauge of metal, depth, shape and pitch of corrugations, with no options, which when used with a lightweight aggregate concrete to be specified by WSHJ, could pass a 3-hour fire test performed in accordance with ASTM E-119. It was agreed that the use of special rolls for deck (at a premium of $40,000) was economically justified by savings in deck fireproofing.

   B. After completing the design we will review the necessity for conducting pilot fire tests on deck.

2. WSHJ was also assigned the task of reviewing partition thicknesses at elevator shafts with regard to "stack action" and "plunger pressures". Julian Roth agreed that field measurements could be made at the Pan Am Building. Irv Soffer is to make available shaft pressure data on the Chase Manhattan Building which he received from Cal Kort. WSHJ will make their recommendations as soon as possible based on structural integrity of shafts. Changes to architectural offset dimension at partition faces make it imperative to finalize thicknesses now.

3. WSHJ was instructed to use Option #3 shown on their Sketch SK-EW3, as the final configuration of exterior columns, compatible with window washing track. Termporary erection bolts which would be removed, after field welding of splices and prior to facade erection, are to be incorporated in final version of Option #3.

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4. The structural design will be based upon the use of welded column splices below the 70th floor with bolted splices to be permitted above this point. Some sort of note will be placed upon the contract drawings to the effect that "Bolted column splices may be used above the 70th floor at the steel contractor's option. All proposed bolted splices must be approved by the Port Authority."

5. It was decided that forms would be used within the core area and that beams would receive contact fireproofing. At core rentable areas, however, where electrical raceways are required, the same type deck used "outside the core" would be run into core rentable areas and used as a form for the floor slab.

6. KBS is to rework their Drawing A-R-PPR-1-14-136 to show:

A. Use of spray-on type fireproofing on the outside face of the structural spandrel to be applied after exterior wall spandrel is in place. The upper 13"± of the inside face of the spandrel beam will be fireproofed with gypsum block or equivalent material.

B. The core end of truss will be revised to eliminate the "removable bottom chord" to carry ceiling. Fireproofing at the upset beam will be formed from top of truss seat to the top flange of the upset beam and poured with the floor slab. The block partitions above upset beam will bear partially on concrete F.P. and partially on steel. The partition below will butt against bottom flange of upset beam. After blockwork is in place the shaft side of exposed upset beam is to be contact fireproofed.

7. WSHJ will finalize truss end connections and arrange details to provide minimum clearance at ends consistent with erection requirements.

Malcolm P. Levy
Chief, Planning Division
The World Trade Center

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